

ABSTRACT OF THE DISCLOSURE

A fluorinated carbon fiber has a hollow core structure in which a number of hexagonal carbon layers in the shape of a cup having no bottom are stacked. Edges of the hexagonal carbon layers are exposed on the inner and outer surfaces of the fluorinated carbon fiber. In the fluorinated carbon fiber, the exposed edges of the hexagonal carbon layers are fluorinated and have a structure shown by  $C_xF_y$ .

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